

In the Claims:

1-14 (canceled)

15. (previously presented) A semiconductor device structure comprising:

a first metallic interconnect;

a second metallic interconnect having a primary via structure, said primary structure having an active diffusion volume relative to a location within the primary structure wherein voids can be located, disposed between and electrically intercoupling the first and second metallic interconnects; and

a buffer structure disposed upon the second metallic interconnect in proximity to the primary via structure and within the diffusion volume to buffer the primary via structure from diffusive voiding occurring at a contact point between the primary via structure and the second metallic interconnect.

16. (previously presented) The structure of claim 15 wherein the first metallic interconnect and the primary via structure are copper-based dual damascene structures.

17. (previously presented) The structure of claim 15 wherein the buffer structure comprises a second via structure, disposed between and electrically intercoupling the first and second interconnects.

18. (previously presented) The structure of claim 15 wherein the buffer structure comprises a second, electrically inactive, via structure, disposed upon the second metallic interconnect proximal to the primary via structure and within the active diffusion volume.

19. (previously presented) the structure of claim 18 wherein the buffer structure comprises an electrically inactive structure disposed upon the second metallic interconnect to immediately and completely surround the primary via structure.

20. (previously presented) The structure of claim 15 wherein the buffer structure comprises:

a second via structure, disposed between and electrically intercoupling the first and second metallic interconnects; and

a third electrically inactive, via structure, disposed upon the second metallic interconnect proximal to the primary via structure.

21. (previously presented) A semiconductor device for decreasing diffusive effects to a location within a primary structure, comprising:

a primary structure having an active diffusion volume relative to a location within the primary structure where voids can be located; and

a redundant structure within the active diffusion volume to minimize movement of voids to said location.

22. (previously presented) The device of claim 21 wherein the redundant structure comprises plural redundant structures.

23. (previously presented) The device of claim 21, wherein the redundant structure is operative relative to diffusive redundancy only.

24. (previously presented) The device of claim 21 wherein the redundant structure is operative relative to electrical redundancy.

25. (previously presented) The device of claim 21 wherein said device has a copper-based, dual-damascene structure having an active diffusion volume within the dual-damascene structure relative to a location within the dual-damascene structure to which voids can migrate.

26. (previously presented) The device of claim 22 wherein said device has a copper-based, dual-damascene structure having an active diffusion volume within the dual-damascene structure relative to a location within the dual-damascene structure to which voids can migrate.

27. (previously presented) The device of claim 23 wherein said device has a copper-based, dual-damascene structure having an active diffusion volume within the dual-damascene structure relative to a location within the dual-damascene structure to which voids can migrate.

28. (previously presented) The device of claim 24 wherein said device has a copper-based, dual-damascene structure having an active diffusion volume within the dual-damascene structure relative to a location within the dual-damascene structure to which voids can migrate.

29. (currently amended) A semiconductor device to ~~minimizing~~ minimize diffusive damage effects comprising:

- a first layer of interconnect material and a second layer of interconnect material partially overlapping said first layer of interconnect material and coupled to said first layer of interconnect material by a via;
- an active diffusion volume in said first layer of interconnect material within which voids can be located; and
- a structure in said first layer within said active diffusion volume to minimize migration of said voids toward said via.

30. (previously presented) The device of claim 29 wherein said structure is at least one via extending from said first layer and spaced from said second layer.

31. (previously presented) The device of claim 30 wherein said at least one via is a plurality of vias.

32. (previously presented) The device of claim 31 wherein said plurality of vias are equidistant from said via and spaced apart.

33. (previously presented) The device of claim 29 wherein said structure is at least one electrically insulating slot disposed in said first layer and within said active diffusion volume.

34. (previously presented) The device of claim 24 wherein said at least one slot is a plurality of spaced apart slots.

35. (previously presented) The device of claim 29 wherein said structure further includes at least one electrically insulating slot disposed in said first layer and within said active diffusion volume.